



2 November 2007

Mr Mike Buckley  
General Manager  
Network Regulation North Branch  
Australian Energy Regulator  
PO Box 1199  
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Dear Mike

### **UNDERGROUNDING CONTINGENT PROJECT**

In accordance with section 6A.8.2 of the National Electricity Rules (Rules) and the Australian Energy Regulator's (AER's) Decision on Powerlink's 2007-12 Transmission Network Revenue Cap (June, 2007), Powerlink hereby applies to amend its current revenue determination for an undergrounding contingent project associated with augmentation of supply to the north-eastern Brisbane area (South Pine to Sandgate).

For specific projects forecast to involve some element of undergrounding, Powerlink's 2007-12 ex-ante capex allowance includes an estimate of the efficient costs of an overhead line. To address the additional cost of undergrounding, the AER decided that such costs be treated on a contingent basis. Therefore, the revenue decision also includes a contingent project allowance for the additional cost of undergrounding associated with these projects. To invoke such projects, Powerlink is required to apply the process described in the AER's Draft Decision (December, 2006). Consistent with this process and the Rules, Powerlink provides the following information in order for the AER to make its determination.

#### **Need for Augmentation**

Electricity demand in the north-eastern Brisbane area is expected to increase by an average of approximately 5% per annum over the next 10 years, due to population growth, new water pumping load and extensive commercial and industrial developments. This forecast growth in electricity demand will increase loadings on the electricity networks supplying the north-eastern Brisbane area and is expected to result in the need for augmentation of these networks by summer 2009/10 to ensure customers continue to receive a reliable electricity supply.

#### **Trigger Event**

As set out in Powerlink's revenue decision the trigger event for an undergrounding contingent project is a legal, regulatory or administrative determination made by a relevant authority or Minister which includes some element of undergrounding. For example, planning approval includes undergrounding. However to avoid delaying the implementation of these projects Powerlink may submit an application to the AER for an undergrounding contingent project when either:

- (a) planning approval has been sought for the project (including the undergrounding element). For example, a request has been made to the Minister for designation of the project as community infrastructure; or
- (b) Powerlink has commenced the economic evaluation of options, recommending implementation of a project involving undergrounding. For an augmentation, this is the Regulatory Test.

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Powerlink has undertaken joint planning investigations with Energex and has commenced its formal public consultation process in accordance with the National Electricity Rules and Regulatory Test process to determine the most efficient option to address future supply requirements in north-eastern Brisbane. Specifically, a joint Powerlink/Energex Application Notice was prepared and published on 2 October 2007. A copy of this report is provided as an attachment and is also available on Powerlink's website. As required under the Rules, a summary of the Application Notice has also been provided to NEMMCO.

The Application Notice analysis demonstrates that the option which provides the best-ranked (lowest cost) solution in the majority of plausible market development scenarios under the Regulatory Test involves the following Powerlink works:

- construction of a double circuit 275kV line between South Pine and Sandgate Substations (initial operation at 110kV), including an underground cable component of 2 kilometres and associated overhead/underground transition towers; and
- the increase of transformer capacity at South Pine Substation and split of the 110kV bus to provide two 275/110kV substations.

As this is a project which has been jointly planned with Energex, the Regulatory Test evaluation and Application Notice consultation document includes a range of works to be undertaken by Energex.

Powerlink has commenced consultation on its Environmental Impact Assessment for this project as a forerunner to formal planning approval which, in this case, will be through designation as community infrastructure. At this stage, Powerlink anticipates that an application for community infrastructure designation will be made in December 2007.

In accordance with the process outlined in the Powerlink decision, if planning approval and approval for construction has not been provided by the time the AER has completed its evaluation, the AER will make its determination conditional upon receiving formal notification that planning approval has been received and that approval to construct the project (including the undergrounding) has been given. For augmentation projects, approval to construct would be demonstration that the project has satisfied the Regulatory Test.

### **Forecast Total Capex**

The information and analysis contained in the Application Notice provides the best information available to Powerlink at this point in time. Based upon the analysis and recommendations provided therein, the estimated cost of the Powerlink works described above is \$50.4 million (\$2007/08) or \$53.7 million escalated to completion. The total estimated additional capital cost of the undergrounding component is \$21.1 million at completion. This figure is the cost of the undergrounding less the allowance already provided by the AER for an equivalent length of overhead construction.

### **Forecast Capex and Incremental Opex**

Based upon the analysis and estimates contained in the Application Notice, Powerlink considers that the amounts provided below are reasonably required to construct the undergrounding works associated with the recommended option:

#### *Capital Expenditure*

\$2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Capex (million)	7.4	6.1	6.4	-	-



### Operating Expenditure

\$2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Opex (million)	-	-	0.1	0.1	0.1

To develop its incremental opex forecast, Powerlink has adopted the same process and labour escalation rates approved by the AER in its June 2007 Decision.

### Capex Threshold

Section 11.6.12 of the Rules provides a number of transitional provisions applicable to Powerlink during the current 'transitional' regulatory period, including in relation to contingent projects. Consistent with these provisions, the AER's Final Decision does not require undergrounding contingent projects to be assessed against the threshold amount in the Rules.

### Commencement and Completion Dates

Construction of the South Pine to Sandgate 275kV transmission line is expected to commence following formal approval by the Powerlink Board and satisfactory completion of the Regulatory Test process. Formal completion of the Regulatory Test is expected to occur in early 2008. As identified in the Application Notice, supply augmentation is required by summer 2009/10.

### Incremental Revenue

Powerlink estimates that the incremental revenue associated with undergrounding works for this project is as follows:

\$ Nominal	2007/08	2008/09	2009/10	2010/11	2011/12
Incremental Revenue (million, smoothed)	0	0.44	0.97	1.61	2.39

The estimates above have been calculated on the basis of the capital and incremental operating expenditure estimates identified above, a 8.76% nominal Vanilla weighted average cost of capital, consistent with the manner in which depreciation was calculated in Powerlink's 2007-12 Revenue Proposal and in accordance with the requirements of the AER's roll-forward model and revenue calculation in the post-tax revenue model for the purposes of Powerlink's 2007-12 Revenue Cap Decision.

If you have any queries in relation to this matter, please contact Jennifer Harris.

Yours sincerely,



Merryn York  
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